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VIA COURIER

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
Office of the Secretary
445-12th Street, SW, Room TW-204B
Washington, DC 20554

Re: Opposition of Grupo Televisa, S.A. (RM-9719)

Dear Ms. Salas:

Grupo Televisa, S.A. ("Televisa"), by its attorneys and pursuant to Section 1.405(a) of the Commission's rules, 47 C.F.R. § 1.405(a), hereby files an original and nine copies of its Opposition to the Petition for Rulemaking of Federal Signal Corporation regarding the Amendment of the Commission's Rules to Authorize the Transmission of Emergency Signals on Channel 200 (filed August 2, 1999) (RM-9719).

In connection with its representation of Televisa, Leventhal, Senter & Lerman PLLC has registered as a foreign agent under the Foreign Agents Registration Act, 22 U.S.C. § 612 (1990).

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LEVENTHAL, SENTER & LERMAN P.L.L.C.

Ms. Magalie Roman Salas

October 14, 1999

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Should you have any questions regarding these matters, please contact the undersigned.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Walter P. Jacob", with a long horizontal flourish extending to the right.

Norman P. Leventhal

Barbara K. Gardner

Walter P. Jacob

Counsel to Grupo Televisa, S.A.

Enclosures

cc: Mr. Felix Araujo Ramirez
Ms. Joanie O'Laughlin
Mr. Robert F. Gonsett

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of)	
)	
Amendment of the Commission's Rules to)	RM-9719
Authorize the Transmission of Emergency)	
Signals on Channel 200)	

To: The Commission

OPPOSITION OF GRUPO TELEVISIA, S.A.

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October 14, 1999

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SUMMARY

Grupo Televisa, S.A. ("Televisa"), the owner, through subsidiaries, of Station XETV (Channel 6), Tijuana, Mexico, hereby opposes the Petition for Rulemaking ("Petition") of Federal Signal Corporation ("Federal Signal") seeking the establishment of an Emergency Radio Data System ("ERDS") that would utilize Channel 200 (87.9 MHz) on an exclusive basis.

Federal Signal's Petition glosses over the fact that operation of the ERDS, as proposed, would directly violate the terms and underlying purposes of the Commission's rules restricting the use of Channel 200 -- particularly near the U.S./Mexico and U.S./Canada borders. Channel 200 is not available and should not be made available for ERDS use, as it falls within the spectrum allotted for television Channel 6 operations and serves as an important guardband frequency for those operations. The fact that very limited noncommercial FM Class D operations have been authorized by the Commission on Channel 200 in certain remote parts of the United States in no way suggests that the frequency is available for nationwide allotment on an exclusive basis to a new public safety service. Moreover, the Commission's rules unequivocally prohibit the use of Channel 200 near the U.S./Mexico and U.S./Canada borders in recognition of existing agreements between this country and the governments of Mexico and Canada.

As a result, those governments are likely to object to the operation of Federal Signal's ERDS in border areas. With respect to Mexico in particular, it is probable that widespread ERDS operations in the United States will hamper reception at least of the broadcast signal of Station XETV by its viewing audience, which is located on both sides of the U.S./Mexico border. Grant of Federal Signal's Petition may therefore provoke a dispute that would strain U.S./Mexico relations.

Contrary to statements in the Petition and an associated engineering study, ERDS operations appear likely to cause significant disruption to TV Channel 6 and FM broadcasts (particularly on Channel 201 (88.1 MHz)). In fact, Federal Signal's engineers seem to have undertaken no reliable exploration of the potential for such disruption, and no exploration whatsoever of possible disruption of DTV operations on Channel 6 -- despite the fact that U.S., Mexican and Canadian stations may choose to broadcast DTV signals on that channel. The ERDS could also halve the signal power of all FM stations that can be received on any car radio operating with ERDS equipment, thus impermissibly modifying such stations' broadcast licenses.

There is good reason to believe that ERDS transmissions would disrupt television Channel 6 and FM signals far more frequently than the Petition suggests, particularly in urban areas. Above and beyond the problems posed by day-to-day disruptions, there is a real danger that mischievous or malevolent parties could use illegal ERDS transmitters to commandeer the radios of all drivers in a particular area, causing widespread havoc.

Federal Signal offers no justification for its failure to design its ERDS to use frequencies that the Commission has already set aside for use by public safety services, or for its plan to use wideband/high fidelity broadcast channels for the transmission of simple digital and voice data. Federal Signal's claim that ERDS car radio receivers would be "free" to consumers seems highly improbable, and, in any case, the use of Channel 200 for ERDS would require public safety organizations to purchase substantial quantities of new transmitting equipment that would in many cases not be needed were the ERDS established on a public safety frequency.

In light of these serious drawbacks to Federal Signal's ERDS proposal, Televisa urges the Commission to deny the Petition.

BEFORE THE
Federal Communications Commission
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In the Matter of)	
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Authorize the Transmission of Emergency)	
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To: The Commission

OPPOSITION OF GRUPO TELEVISIA, S.A.

Grupo Televisa, S.A. ("Televisa"), by its attorneys and pursuant to Section 1.405(a) of the Commission's rules, 47 C.F.R. § 1.405(a), hereby opposes the Petition for Rulemaking of Federal Signal Corporation ("Federal Signal") in the above-captioned proceeding.¹ Televisa, a Mexican corporation, has an interest in this proceeding by virtue of its ownership, through subsidiaries, of Station XETV (Channel 6), Tijuana, Mexico.

Whatever the merits of the Emergency Radio Data System ("ERDS") described in its Petition, Federal Signal curiously fails to address or even acknowledge the fact that operation of that system would directly violate the terms and underlying purposes of existing FCC rules regarding use of Channel 200 (87.9 MHz) -- the proposed ERDS channel -- particularly near the U.S./Mexico and U.S./Canada borders. As a result, Federal Signal's proposal to operate the ERDS on Channel 200 could strain relations between the United States and its nearest neighbors. In addition, ERDS use of Channel 200 -- which falls within the spectrum allotted to TV Channel 6

¹ Petition for Rulemaking of Federal Signal Corporation, RM-9719 (filed August 2, 1999) ("Petition").

-- would deprive U.S. Channel 6 stations of an important guardband frequency, and appears certain to disrupt reception of licensed television Channel 6 and FM broadcasts (particularly on Channel 201 (88.1 MHz)) throughout the United States.

In spite of the substantial problems posed by its choice of frequency, Federal Signal makes no effort to explain why it could not employ for ERDS purposes one of the many frequencies previously allocated for public safety services. Therefore, unless Federal Signal modifies its ERDS proposal to employ established public safety frequencies, or protects fully, by some other means, all potentially affected television Channel 6 and FM broadcast operations, Televisa urges the Commission to deny the Petition.

I. As Proposed, the ERDS Would Violate the Commission's Rules and Is Likely to Trigger International Opposition, At Least from Mexico.

In its Petition, Federal Signal describes the ERDS as a means of disseminating localized emergency information to motorists so that they may take action to avoid accidents, oncoming emergency vehicles and weather-related disasters.² The system, which would allegedly be capable of transmitting voice and data messages in a one-mile radius from mobile or fixed locations such as ambulances or traffic signs, would alert drivers by automatically activating and tuning their car radios to Channel 200 even if the radios are not in use or are playing tapes or compact discs at the time.³

Federal Signal asserts that Channel 200 is currently allotted to displaced Class D FM

² See id. at 1.

³ See id. at 5-6.

noncommercial stations.⁴ As discussed further below, the Petition acknowledges that operation of the ERDS, as proposed, may cause interference to television Channel 6 and to FM Channel 201.⁵ In addition, Federal Signal recognizes in a footnote to its Petition that its proposed use of Channel 200 "potentially implicates certain treaties with Mexico and Canada" regarding broadcast operations in the U.S./Mexico and U.S./Canada border areas, and "urges the Commission to coordinate any international issues relating to the nationwide use of Channel [sic] for ERDS during the notice and comment phase of this proceeding."⁶ Arguing, however, that Channel 200 is "virtually vacant nationwide" and that the ERDS would afford public safety and health benefits, Federal Signal urges the Commission to allot Channel 200 "nationwide for *exclusive* use with ERDS."⁷

As Federal Signal is surely aware, Channel 200 is largely "vacant" because it falls within the spectrum allotted for television Channel 6 operations and serves as a guardband for those operations.⁸ The only parties other than Channel 6 licensees that are permitted by the Commission's rules to use Channel 200 are noncommercial FM Class D stations.⁹ Such Class D

⁴ See id. at 7 (citing Changes in the Rules Relating to Noncommercial Educational FM Broadcast Stations, 69 F.C.C.2d 240, 247 (1978) ("NCE Order").

⁵ See id., Exhibit E at 8-9.

⁶ Id. at 7 n.10.

⁷ Id. at 7 (emphasis added).

⁸ See 47 C.F.R. § 73.603(a).

⁹ See 47 C.F.R. § 73.501(a) n.1.

stations, however, do not by any means have unlimited rights to use Channel 200. In the NCE Order that Federal Signal cites in passing in its Petition, the Commission noted that "the interference potential [between noncommercial FM operations on Channel 200 and television Channel 6 operations] is great because the center frequency for the TV Channel 6's FM sound carrier is 87.75 MHz, which is quite close to the proposed FM frequency of 87.9 MHz."¹⁰ The Commission observed that "we cannot use Channel 200 near the Mexican and Canadian borders. It is also true that it cannot be used anywhere in the vicinity of existing Channel 6 TV operations."¹¹ Accordingly, the Commission prohibited Channel 200 operations near border areas and established that television Channel 6 stations would be protected "not just to the 47 dBu (Grade B) contour but to the 40 dBu contour."¹²

The Commission encapsulated the foregoing NCE Order findings and decisions in a new provision of its rules. Note 1 to Section 73.501(a) provides, in pertinent part:

The frequency 87.9 MHz, Channel 200, is available *only* for use of existing Class D stations required to change frequency. *It is available only on a noninterference basis with respect to TV Channel 6 stations and adjacent channel noncommercial educational FM stations. It is not available at all within 402 kilometers (250 miles) of Canada and 320*

¹⁰ NCE Order, 69 F.C.C.2d at 257.

¹¹ Id. at 259.

¹² Id. at 260. The Commission also published a map depicting the very limited areas in which noncommercial FM stations could operate on Channel 200 without violating U.S. treaty considerations or causing television Channel 6 interference. See id. at 261 (Figure 1). Notably, all such depicted areas are far from urban centers, which, as discussed further below, are a major target for Federal Signal's ERDS operations.

*kilometers (199 miles) of Mexico.*¹³

Plainly, any interference caused by ERDS operations to TV Channel 6 stations or adjacent channel noncommercial educational FM stations would violate Section 73.501(a)'s prohibition of such interference. "Nationwide" operation of the ERDS would also violate Section 73.501(a)'s ban on the use of Channel 200 near the U.S./Mexico and U.S./Canada borders. In addition, ERDS operations on Channel 200 would effectively constitute a detrimental modification of the Commission's rules assigning channels that are 6 MHz wide to all television broadcast stations,¹⁴ by depriving television Channel 6 licensees of an important portion of their guardband spectrum nationwide. Nevertheless, Federal Signal fails to seek modification or waiver of any Commission rule to permit such activity. On these grounds alone, the Commission should deny Federal Signal's Petition.

There is also no reason to believe that the Mexican and Canadian governments will not object to the operation of Federal Signal's system. As Federal Signal implies,¹⁵ current agreements between the United States and Mexico and between the United States and Canada require coordination between the governments of the relevant nations when a change in the use of the broadcast spectrum is proposed near their borders.¹⁶ With respect to Mexico in particular --

¹³ 47 C.F.R. § 73.501(a) n.1 (*emphasis added*).

¹⁴ 47 C.F.R. §§ 73.601, 73.603(a).

¹⁵ See Petition at 7 n.10.

¹⁶ See Report on International Negotiations, Spectrum Policy and Notifications, Planning & Negotiations Division, International Bureau, FCC (July 1999) at (continued...)

and as explained below -- widespread ERDS operations in the United States appear likely to hamper reception at least of the broadcast signal of Station XETV by its viewing audience, which is located on both sides of the U.S./Mexico border. Under such circumstances, it is to be expected that the Mexican government will oppose Federal Signal's plans. Grant of Federal Signal's Petition is therefore likely to provoke a dispute with the Mexican government that would strain U.S./Mexico relations.

II. The ERDS Appears Likely to Cause Substantial and Unacceptable Disruptions to TV Channel 6 and FM Broadcast Operations Throughout the United States.

In the Petition, Federal Signal and its engineers, Lohnes and Culver, suggest that any interference or disruption that may be caused by the ERDS to TV Channel 6 or FM broadcast operations would be so negligible as to pose no impediment to the establishment of the system.¹⁷ It appears, however, that there is little basis for such claims, and that disruption caused by ERDS to TV Channel 6 and FM broadcasts is likely to be far more extensive and problematic throughout the United States than the Petition suggests.

A. Federal Signal Offers Insufficient Evidence that the ERDS Would Not Disrupt TV Channel 6 and FM Broadcasts.

In a study attached as an Exhibit to the Petition, Lohnes and Culver acknowledge that Channel 200 is within the upper end of the TV Channel 6 spectrum and has the potential to affect

¹⁶(...continued)
Appendix A.

¹⁷ See e.g., Petition at 5 (stating that tests show that "ERDS works, with minimal, if any, new interference created to co-channel FM stations or to analog TV channel 6").

reception of Channel 6.¹⁸ Lohnes and Culver also recognize that Channel 200 is immediately adjacent to the bottom of the FM band, and may affect reception of FM stations operating on Channel 201.¹⁹ In spite of these conceded facts, however, the Lohnes and Culver study contains insufficient technical information to demonstrate the protection of TV Channel 6 or of FM channels. Indeed, as discussed further in the Engineering Statement of Robert F. Gonsett (appended hereto as Attachment A), it seems that Lohnes and Culver have undertaken no reliable exploration of the interference potential of Federal Signal's proposed ERDS to TV Channel 6 or FM broadcasts. Among other things, it appears that Lohnes and Culver failed to employ in their tests a receiving antenna positioned as specified by the Commission's rules, and also prepared a field intensity chart that misleadingly reflects only a single intensity value at any given distance from an ERDS transmitter.²⁰

The Lohnes and Culver study does indicate, however, that the 1.0 watt effective radiated power of the prototype ERDS transmitters on which the study's interference analysis was based was inadequate for purposes of achieving the one-mile signaling radius that Federal Signal contemplates.²¹ In other words, while the Petition claims that "[p]ower output for the ERDS

¹⁸ See id., Exhibit E at 2, 7.

¹⁹ See id., Exhibit E at 7.

²⁰ See Attachment A at 2-4.

²¹ See Petition, Exhibit E at 4.

transmitter would be limited to 1-watt effective radiated power,"²² Lohnes and Culver admit that such power does not satisfy the system design goal -- and thus cannot accurately reflect the signal disruption that will result once the inevitable ERDS power increase is sought and approved. Federal Signal offers the Commission no data with which to evaluate the effects of higher-power ERDS transmitters on TV Channel 6 or FM broadcasts.

Of equal concern is the fact that Federal Signal's analysis of the ERDS's long-term potential to disrupt TV Channel 6 broadcast operations appears to be based on false assumptions. More specifically, Federal Signal is incorrect in suggesting that the FCC need limit the extent of ERDS transmissions that may interfere with TV Channel 6 transmissions only "until analog Channel 6 television spectrum is returned pursuant to the Commission's DTV transition plan."²³ In the first place, Canadian or Mexican stations such as XETV that operate near the U.S. border on TV Channel 6 will not necessarily cease operations on that channel, and any U.S. ERDS must therefore be designed so as to protect reception of these stations' Channel 6 transmissions by foreign and U.S. viewers alike.

Even within the United States, Federal Signal has no basis for assuming that TV Channel 6 will be returned by all U.S. stations in connection with the U.S. DTV plan. Channel 6 is within the designated DTV "core" -- which consists of Channels 2-51 -- and there may well be U.S.

²² See id. at 8.

²³ Id. at 6-7.

broadcasters that plan to provide DTV service on Channel 6.²⁴ In this same regard, it is important to note that the study conducted by Lohnes and Culver addresses only the effect of ERDS transmissions on analog television signals; the effect of such transmissions on Channel 6 DTV broadcasts -- whether in the United States, Mexico or Canada -- remains unexplored.

With particular regard to FM broadcast operations, Televisa notes that receipt of many FM signals -- not just FM Channel 201 -- may be significantly affected by Federal Signal's proposed ERDS. As noted in the Engineering Statement attached hereto, the Lohnes and Culver study does not indicate what portion of the FM signal to be received by a car radio would be diverted for purposes of activating the ERDS 87.9 MHz tuner.²⁵ Were Federal Signal's system to employ a conventional 3 dB splitter for such purposes, however, the power of the signal of each FM station received by a car radio would effectively be reduced by half. Thus, where a listener's car radio can currently receive a particular station with only minor static, the listener would find that installation of ERDS equipment would increase the amount of static to an objectionable level. Significantly, listeners' ability to receive FM broadcast signals would be impaired in this manner not only during ERDS transmissions, but *at all times after ERDS equipment is installed in their*

²⁴ See Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, 13 FCC Rcd 7418, 7435-36 (¶ 42) (1998) (expanding the DTV core to include channels 2-51); Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, 14 FCC Rcd 1348, 1373-74 (¶¶ 54-57) (1998) (denying a request to exclude Channel 6 from the DTV core spectrum).

²⁵ See Attachment A at 5.

car radios.²⁶ The result would be to reduce permanently the ability of many radio stations to reach commuting listeners within their normal broadcast range -- a de facto modification of such stations' broadcast licenses without due process.²⁷ Quite apart from the impracticality of conducting the necessary proceedings to impose such undesirable modifications on broadcast licenses, Televisa submits that Federal Signal cannot reasonably ask the broadcast industry to submit to the severe limitations described above for the sake of its system proposal.

B. The Occurrence of Disruptive ERDS Transmissions Would Be Far More Frequent Than the Petition Suggests.

In their study, Lohnes and Culver assert that a mobile ERDS transmitter is unlikely to pass close enough to a fixed (home or office) FM receiver site to disrupt FM reception.²⁸ Similarly, they assert that incidents in which ERDS transmitters pass close enough to a house or business to disrupt TV Channel 6 reception "will be physically rare if not impossible."²⁹ While the study appears to concede that a mobile ERDS transmitter may pass a mobile FM receiver (i.e., a car radio) close enough to disrupt reception, Lohnes and Culver indicate that such incidents are

²⁶ As many of the stations whose signals may be rendered inaudible by the ERDS system currently carry vital safety information themselves as part of the existing Emergency Alert System ("EAS"), it is conceivable that installation of ERDS equipment would leave drivers less safe than before.

²⁷ See 47 U.S.C. § 316 (providing that no Commission order modifying a station license or construction permit shall become final until the license or permit holder has been notified in writing of the proposed action and the grounds and reasons for the action, and has had reasonable opportunity to protest).

²⁸ See Petition, Exhibit E at 7.

²⁹ Id., Exhibit E at 8.

generally likely to occur so briefly as to present no significant problem for listeners unless the transmitter and receiver are both "stopped at or close to the emergency location."³⁰ Thus, the Lohnes and Culver study creates the impression that ERDS transmitters will rarely, if ever, disrupt TV Channel 6 or FM reception.

Based on the other information attached to the Petition, however, it appears that such disruptions would, in fact, be a routine occurrence. A Federal Signal publication entitled "Local Area Emergency Radio Data System: The Universal Warning Solution" suggests that ERDS transmissions would emanate regularly from ambulances, fire engines, police cars and other emergency vehicles attempting to negotiate traffic; from school buses stopping to let off or pick up children; from signs warning of road construction and from moving construction vehicles; from bridges and other locations where snow, ice, flooding or other conditions may present a hazard; from railroad crossings; from road signs offering routine traffic advisory information; and from other locations used to notify drivers of weather or other emergencies.³¹ Furthermore, Lohnes and Culver state that ERDS messages "will be individually short but can as necessary be repeated relatively frequently, and thus run continuously during the emergency event."³² One can only imagine the frustration of people who live and work in the vicinity of major thoroughfares as they

³⁰ Id., Exhibit E at 7. Lohnes and Culver do not address the effect of ERDS transmitters on the ability of mobile TV units to receive TV Channel 6, despite the fact that the use of television sets in moving vehicles is not uncommon.

³¹ See id., Attachment B ("Local Area Emergency Radio Data System: The Universal Warning Solution") at 6 ("Universal Warning Solution").

³² Petition, Exhibit E at 2.

attempt to receive TV Channel 6 or FM Channel 201 in the face of incessant, periodic ERDS transmissions from roadside signs, bridges, construction sites and the like. Televisa notes that no central authority would regulate or even monitor the number of times per day, hour or minute that ERDS transmissions are made, or prevent simultaneous ERDS transmissions from two or more different sources from interfering with one another.

Logic suggests that ERDS transmissions would occur particularly often in urban settings, and would consequently present an unusual burden to urban dwellers. Indeed, Federal Signal may plan to use the ERDS more extensively in urban areas than elsewhere; the company states that the ERDS is superior to warning systems that rely on lights and sounds alone, as lights "cannot be seen around corners of buildings, which is particularly a problem in urban areas" and sirens "cannot be heard by individuals . . . in . . . urban streets, or well-insulated buildings."³³

There can be little comfort for urban dwellers in the questionable view, advanced by Lohnes and Culver, that the effect of ERDS transmissions on those attempting to receive TV Channel 6 or FM broadcasts would be limited because a transmitter would have to be very close to a residential dwelling or office building to affect reception.³⁴ In general, urban dwellers live and work much closer to the streets on which ERDS transmitting vehicles would be traveling and on which transmitting signs would be posted than do suburban or rural residents, and thus the level of interference that such urban dwellers can expect to experience is actually likely to be the

³³ Universal Warning Solution at 2.

³⁴ See Petition, Exhibit E at 8-9.

unacceptable level that Lohnes and Culver claim is so unlikely. Moreover, as Federal Signal itself notes, "RF signals pass through most building materials without substantial attenuation, making them particularly suitable for carrying warning signals inside a home or other environments that isolate occupants from ambient conditions."³⁵ It therefore appears that there will be no escape for many urban dwellers from constant interference from ERDS transmissions.³⁶

C. The ERDS Appears Vulnerable to Abuse by Those Wishing To Harm or Harass, Rather Than Protect, the Traveling Public.

The danger also exists that the ERDS could be employed by mischievous or malevolent parties for purposes other than those for which it was intended.³⁷ Unlike the EAS, which permits broadcasters to screen incoming emergency messages before transmission, the ERDS system would allow the transmitting party direct access not only to the frequencies used by radio listeners but to the on/off switches, radio dials and volume controls of such listeners' radios. Thus, anyone with a small, illegal FM transmitter and a Radio Data System data encoder would be able to broadcast to all people in the area with suitably equipped radios from a moving vehicle or a stationary site -- thus disturbing and/or deliberately misleading and panicking car radio listeners

³⁵ Universal Warning Solution at 1.

³⁶ It is important to add that urban drivers, too, may object to the frequency of ERDS transmissions, even if they are unconcerned by the effect of those transmissions on their reception of weaker FM radio signals or of TV Channel 6. Faced with constant interruptions to their enjoyment of radio broadcasts, tapes or CDs as they drive in and around urban areas -- or as they find themselves caught in traffic -- drivers may opt to eliminate the safety warnings that they are receiving by simply disabling the ERDS feature on their radios. Such a result would clearly defeat the entire purpose of the emergency warning system that Federal Signal proposes.

³⁷ See Attachment A at 6-7.

within a 1-mile radius of the transmitter site. An enterprising party with a more powerful transmitter could conceivably commandeer the radios of drivers throughout an entire metropolitan area, potentially causing widespread chaos. For the sake of public safety as well as the protection of adjacent broadcast operations, the Commission must ensure that any ERDS is equipped with adequate safeguards (e.g., digital codes) to prevent misuse by unauthorized parties.

III. Federal Signal Offers No Justification For Failing to Design the ERDS to Employ Previously Allocated Public Safety Frequencies.

Given the difficulties that would arise as a result of ERDS operations on Channel 200, it is surprising that Federal Signal offers no convincing explanation in the Petition for why it did not design its proposed system to employ the extensive frequencies that the Commission has already set aside for use by public safety services. Federal Signal also offers no justification for attempting to use wideband/high fidelity broadcast channels for the transmission of simple digital and voice data. Indeed, there appears to be no reason why digital and voice data of the kinds contemplated in the Petition cannot be carried over a public safety channel, or even a new "Channel 15" Family Radio channel which civilian radios could be programmed to receive, but not transmit. It can hardly be argued that insufficient public safety frequencies have been set aside for such purposes, as the Commission allocated 24 MHz at 764-776 MHz and 794-806 MHz on a primary basis for fixed and mobile services and designated the spectrum for public safety use just last year.³⁸

³⁸ See Reallocation of Television Channels 60-69, the 746-806 MHz Band, 12 FCC Rcd 22953 (1998); see also The Development of Operational, Technical and
(continued...)

Federal Signal's claim that use of Channel 200 would "enable[] the ERDS to function simply, without the need to employ cross-service frequencies and technology" appears to suggest that the use of alternative frequencies would either be more costly or more difficult than the use of 87.9 MHz. In keeping with that suggestion, Federal Signal asserts elsewhere that implementation of the ERDS would be effectively "free" to the motorists whose car radios would nevertheless have to be equipped to accommodate the system.³⁹ Federal Signal offers no evidence, however, to support these claims.

It seems obvious that the installation and/or use of ERDS monitoring and receiving equipment in car radios would have a measurable and significant cost. Even if that cost were imposed on car or car radio manufacturers rather than directly on motorists, it would inevitably be passed on to all motorists in the form of higher car prices. It also seems self-evident that the use of 87.9 MHz for ERDS transmissions would require federal, state and local public safety organizations to purchase substantial amounts of new transmitting equipment for emergency vehicles, school buses, street signs and the like; were the ERDS system instead to employ designated public safety frequencies, many public safety organizations would be able to transmit ERDS information using the transmitting equipment already installed in their vehicles.

In short, the use of public safety frequencies for the ERDS would not only better conform

³⁸(...continued)

Spectrum Requirements For Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010, 14 FCC Rcd 152 (1998).

³⁹ Petition at 3.

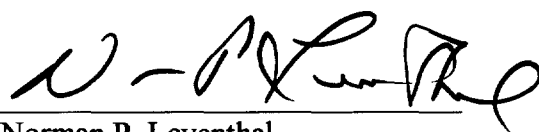
to the stated purposes of Federal Signal's proposed system, but would eliminate interference concerns vis-a-vis broadcast stations and could save money for consumers and public safety organizations as well. Federal Signal's failure to design its ERDS system to employ existing public safety frequencies is further grounds for denial of its Petition.

IV. Conclusion

Federal Signal's ERDS proposal would require substantial and problematic modifications to the Commission's rules regarding the use of Channel 200 that are barely mentioned in the Petition. It is also likely to provoke international opposition, particularly from the Mexican government, and cause unacceptable disruptions to television Channel 6 and FM broadcast operations throughout the United States. For these reasons and the others set forth herein, Televisa urges the Commission to deny Federal Signal's Petition.

Respectfully submitted,

GRUPO TELEVISA, S.A.

By: 

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Barbara K. Gardner

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October 14, 1999

Its Attorneys

ATTACHMENT A

ENGINEERING STATEMENT OF ROBERT F. GONSETT

TECHNICAL COMMENTS ON THE LOHNES & CULVER
JULY 29, 1999 REPORT ENTITLED
"TECHNICAL REPORT RE; DESCRIPTION AND ANALYSIS
OF THE FEDERAL SIGNAL - ERDS SYSTEM"

ENGINEERING STATEMENT OF ROBERT F. GONSETT

Communications General Corporation, consulting radio engineers, has been retained by Televisa, S.A. to review the above-captioned Lohnes & Culver ("L&C") technical report which was presented to support a request for designation of FM Channel 200 (87.9 MHz) as a nationwide Emergency Radio Data System ("ERDS") frequency. The L&C report is a part of Federal Signal Corporation's Petition for Rulemaking (RM-9719) which proposes a system that will automatically activate a car radio (even if the radio is off, or a tape or CD is playing) and tune it to 87.9 MHz to receive information on traffic accidents and dangerous road or weather conditions.

The L&C report is deficient in several respects in that it (a) does not include sufficient technical information to demonstrate the protection of pertinent broadcast channels, particularly Channel 201 (88.1 MHz) and Television Channel 6, (b) does not show why existing public safety frequencies cannot be used for the purpose proposed and (c) does not offer sufficiently strong data coding to guard against the unauthorized use or abuse of 87.9 MHz by pirates, mischief-makers or terrorists wanting to broadcast to all motorists in a metropolitan area.

The L&C Report Offers
Insufficient Technical Information to Assure the Protection of
FM Broadcast Signals and Television Channel 6

FM Channel 200 is technically in the upper portion of the spectrum allocated to Television Channel 6 and is not available for widespread use in the United States or in the border areas near Canada and Mexico, see 47 CFR Section 73.501(a), footnote 1. Therefore, the proponent carries the burden of proof that its new and unique use of Channel 200 will not cause interference to Channel 6 or adjacent FM channels. While L&C claims that Federal Signal has considered the interference impact on TV Channel 6 and FM Channel 201 (L&C p.2, para. 3), there is insufficient technical information presented to support this claim. Moreover, L&C fails to specify how much of the incoming FM signal in a car radio will be diverted to feed the proposed 87.9 MHz tuner. It is possible that all conventional FM reception will be degraded as a result of adding the ERDS tuner.

Instead of offering detailed interference studies of the type that are customary in the broadcast industry, L&C merely summarizes information which it states was provided by Allen Chisholm of Lockard & White (L&C p.4, para. 1) without presenting any underlying reports written by Mr. Chisholm or his company. The following information demonstrates the insufficiency of the L&C showings:

- (1) On page 4, para. 1, L&C discusses the 60 dBu contour of FM broadcast stations. The location of this contour may be calculated or measured, but in both cases the

receiving antenna must, by definition, be placed 9 meters above ground level (see 47 CFR Sections 73.333 (Fig. 1), 73.314(b)(2) and 73.314(c)(2)).

Following the discussion of the 60 dBu contour, L&C immediately presents a chart listing various "field intensity" values for the ERDS system at various distances from an ERDS transmitter. It is unclear whether Lockard & White used a calibrated receiving antenna elevated nine meters above ground level so that ERDS signal strengths could be compared directly against broadcast signal strengths - a necessary step in order to calculate the interference areas caused by the ERDS system using the "d-to-u" (desired-to-undesired) signal strength charts at the end of the L&C report. Use of an elevated antenna seems unlikely since the ERDS receiving antenna was roof mounted on a vehicle.

To find out more, I called the report's author, Mr. Robert Culver, on September 27, 1999. He said he did not recall the details of the measurements but did not believe that a nine meter mast was used. I then asked for a copy of the Lockard & White report which he relied upon in preparing his report, and I was told that there was no formal report but only memoranda to document the field work, and that he was not in a position to release those memos. Therefore, we have no real understanding of the technical procedures used by Lockard & White.

Compounding the interference question is the fact that L&C has not provided any hard data on the areas over which it expects interference to or from FM Channel 201 and TV Channel 6 to occur. For example, when I asked Mr. Culver for a copy of Federal Signal's report outlining the interference testing conducted at the California Highway Patrol training facility in Sacramento, California (L&C p. 6, para. 4), he stated that the testing was more to demonstrate the ERDS system to the Highway Patrol than to assess interference levels, implying that few, if any, interference studies were run.

In short, the L&C report provides only pieces to the interference puzzle, and no analytical conclusions.

- (2) The field intensity chart on L&C page 4 is grossly inadequate because it presents only a single field intensity value at any given distance from an ERDS transmitter; actual field strength values will vary tremendously depending on intervening terrain. For example, L&C claims that a one watt ERP ERDS transmitter will produce a field intensity of 32 dBu at a distance of one mile. However, real life experience indicates that the strength will be much less than 32 dBu behind a tall hill, or as much as 73 dBu if free space propagation exists. (Here, I use "dBu" to indicate Decibels above one microvolt per meter which is a commonly used FCC term. We do not know at this juncture if L&C's "dBu" reflects this field strength definition, or indicates dB above one microvolt measured at the receiver terminals (which is not a field strength value), or reflects something else entirely. I asked Bob Culver and he did not recall.)

- (3) In the case of our client, Televisa, which operates XETV, Channel 6 in Tijuana, Mexico -- a station which is regularly viewed in San Diego, California -- we note that L&C has not reported the impact of ERDS operations on DTV transmissions should XETV (or others, including U.S. television broadcasters) ultimately use Channel 6 for digital TV purposes. The lack of DTV interference data is particularly disturbing considering the rapid transition to digital broadcasting which is now occurring in the television industry.
- (4) Similarly, L&C does not specify how much of the incoming FM broadcast signal in a car radio will be diverted from the broadcast tuner to feed the proposed ERDS 87.9 MHz tuner. If a conventional 3 dB splitter is used, all FM broadcast signals will suffer as if every FM broadcast station had its power cut in half. The implementation of ERDS is not worth degrading all FM broadcast signals by 3 dB. FM stations carry EAS information - vital public safety announcements covering wide area events - so there is an important motivation for preserving the integrity of the FM broadcast service.
- (5) On page 4, para. 2, L&C states that:
- "The test transmitter operated at 1.0 Watt ERP from a 1/4 wavelength vertical monopole whip over a ground plane, the roof of the test transmitter vehicle. The effective signaling distance appears to fall slightly short of the 1 mile goal but in excess of one half mile."
- If one watt ERP will not satisfy the system design goal to provide signaling over a one mile radius, one might reasonably ask how much power Federal Signal will ultimately request. Certainly areas of marginal or poor propagation will

require considerably more power to reach the one mile goal. Any increase in transmitter power will enlarge the interference areas to FM Channel 201 and TV Channel 6.

The L&C Report Fails to Show Why Frequencies Designated
for Public Safety Use Cannot Be Used for ERDS

Put simply, L&C provides no reason why wideband/high fidelity broadcast channels are needed for the dissemination of emergency road and traffic information. Digital and voice data of the kinds contemplated in the Federal Signal petition can be carried over a public safety channel, or even a new "Channel 15" Family Radio channel where civilian radios would be programmed to receive, but not transmit. Federal Signal should explore the alternatives before proposing to use a portion of the spectrum that is already allocated to TV Channel 6.

Strong Digital Coding Must Be Used to Guard Against Unauthorized Channel Use

The Federal Signal petition relies on conventional RDS coding to open all car receivers within listening range. Here the danger is that a relatively simple code could be duplicated by a mischief-maker or terrorist wanting to hijack mobile receivers. These individuals would simply use a medium-power RDS-equipped "pirate" transmitter at a highly elevated site to force-feed their messages on 87.9 MHz.

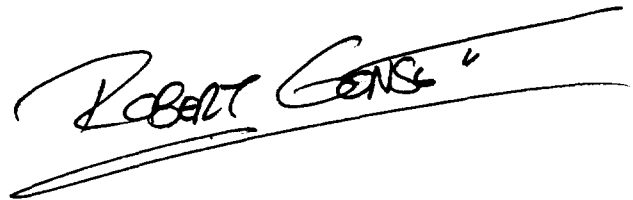
ERDS should only be deployed if a sufficiently robust protective code can be developed so that mischief-makers and terrorists cannot "open" the system and use it for their own purposes;

otherwise, members of the general public will quickly disable their ERDS receivers ("ERDS has been designed so that a motorist may disengage the receiver capability," RM-9719 Petition for Rulemaking, p. 5, para.2), defeating the purpose of the Emergency Radio Data System.

Certification

I, ROBERT F. GONSETT, do hereby declare under penalty of perjury:

1. That I am a graduate of the Massachusetts Institute of Technology in the field of Electrical Engineering and that I am president of Communications General Corporation, consulting radio engineers, with offices at 2685 Alta Vista Drive, Fallbrook, California 92028; telephone (760) 723-2700.
2. That I am a member of the Institute of Electrical and Electronic Engineers (IEEE) and have filed numerous documents with the Federal Communications Commission in broadcast matters over the past 30 years.
3. That Communications General Corporation has been retained by Televisa to prepare this Engineering Statement.
4. That this Statement is true and correct by my own knowledge and belief, except for such statements that are based on the information of others, and that information I believe to be true and correct.

A handwritten signature in black ink that reads "Robert Gonsett". The signature is stylized with a large, sweeping underline that extends across the width of the signature.

Robert Gonsett

September 29, 1999

CERTIFICATE OF SERVICE

I, Tim Jordan, do hereby certify that a copy of the foregoing "Opposition of Grupo Televisa, S.A." was delivered this 14th day of October, 1999, to the following via U.S. Mail:

M. Scott Johnson
Francis E. Fletcher, Jr.
Gardner, Carton & Douglas
1301 K Street, N.W.
Suite 900, East Tower
Washington, DC 20005

A handwritten signature in black ink, appearing to read "T Jordan", written over a horizontal line.

Tim Jordan